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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/997,202	12/23/1997	GERALD L. MYERS	1-5703	1020

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MACMILLAN, SOBANSKI & TODD, LLC  
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720 WATER STREET  
TOLEDO, OH 43604

EXAMINER

PIAZZA CORCORAN, GLADYS JOSEFINA

ART UNIT PAPER NUMBER

1733

DATE MAILED: 11/05/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

08/997,202

Applicant(s)

MYERS, GERALD L.

Examiner

Gladys J Piazza Corcoran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 September 2002.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 25-42 and 44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25-42 is/are allowed.
- 6) ☒ Claim(s) 44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

**FINAL ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art taken with the conventional state of the art as evidenced by Dyckma (US Patent No. 1,943,658), Jedlicka et al. (US Patent No. 4,954,197), Bussard (US Patent No. 4,838,965), and Bethea (US Patent No. 4,324,605).

The Admitted Prior Art discloses a method of manufacturing a driveshaft that is balanced for rotation about an axis by providing a driveshaft that is unbalanced for rotation about an axis, providing a balance weight, and providing an adhesive material between the rotatably unbalanced driveshaft and the balance weight to adhere the balance weight at a location for balancing the unbalanced driveshaft for rotation about an axis and curing the adhesive to provide a driveshaft that is balanced for rotation about an axis (page 1, line 26 to page 2, line 20).

It is considered well known and considered conventional in the art of bonding two articles together to move the two articles toward each other with a first portion of adhesive between the articles and a second portion of the adhesive is not disposed between the two articles in order to form a flange to more securely bond the articles together. For example, Dyckma discloses a method of bonding beads to fabric where

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the adhesive between the articles is pressed so that a portion of adhesive spreads beyond the periphery of the bead in order to form a flange around the bead that embraces the bead and insures retention of the bead on the fabric (column 2, lines 60-75). Jedlicka discloses another example where a chip is adhesively bonded to a substrate and a portion of the adhesive extends beyond the periphery of the chip in order to more securely bond the articles together (column 3, lines 5-68). Bussard also discloses an example of adhering a holograph to a substrate where adhesive between the two articles is pressed and squeezed out to form a flange that retains the hologram on the substrate with a more secure bond (column 2, line 64 to column 3, line 8). Finally, Bethea also discloses a method of adhesively bonding a tile to a substrate where the tiles are pressed into the adhesive forming a second portion of adhesive that extends beyond the periphery of the tile in order to anchor the tiles until the adhesive cures (abstract lines 11-15, column 2 lines 10-40, column 6, lines 47-55, and figures 4 and 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the method of adhering a balance weight to a driveshaft as shown by the Admitted Prior Art by moving the weight toward the driveshaft toward one another such that a first portion of adhesive is between the weight and the driveshaft and a second portion of adhesive is not disposed between the weight and driveshaft as it is considered a conventional expedient of one of ordinary skill in the art of bonding and as further exemplified by the art taken as a whole in order to more securely bond the articles to each other as shown in Dyckma, Jedlicka et al., Bussard, and Bethea.

The claims also recite the limitation that the second portion of adhesive material is initially cured to temporarily retain the weight on the driveshaft and subsequently the first portion of the adhesive material is cured to permanently retain the weight on the driveshaft. Such a limitation is met with the use of a variety of well known and conventional curable adhesives. For example, when a solvent based adhesive is used, the area of the adhesive exposed to the atmosphere (the second portion) will cure prior to the adhesive between the two articles. Such a limitation is also met if a moisture cure adhesive is utilized, the area of adhesive exposed to the moisture in the atmosphere (second portion) will cure prior to the area of adhesive between the articles (first portion). This limitation is also met when external sources of curing agents (such as heat or ultra violet radiation) are used to cure the adhesive. The portion of adhesive (the second portion) which is closest to or directly exposed to the curing device (the heat or UV rays) will cure prior to the adhesive between the two articles (the first portion).

Alternatively, it is well known in the art to provide temporary securement of articles in the manufacturing industry by curing only a portion of the adhesive in order to allow for further processing until the entire adhesive is cured and the articles are permanently secured. For example, Jedlicka discloses that the second portion of the adhesive (the adhesive not between the chip and the substrate) is cured by an accelerated curing process (UV light) in order to temporarily hold the chip in place until the chip is permanently secured to the substrate by subsequent curing of the first portion of adhesive (column 3, lines 5-68; column 4, lines 10-20). It would have been

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obvious to one of ordinary skill in the art at the time of the invention to provide the method of securing a balanced weight to a driveshaft by the method as shown by the Admitted Prior Art, Dyckma, Jedlicka et al., Bussard, and Bethea by initially curing the second portion of adhesive in order to temporarily hold the weight on the driveshaft until the first portion is subsequently cured to permanently retain the weight on the driveshaft as it is considered well known in the bonding arts and well within the purview of one of ordinary skill in the art and further exemplified by Jedlicka. Only the expected results would be attained.

3. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art taken with the conventional state of the art as evidenced by Dyckma (US Patent No. 1,943,658), Jedlicka et al. (US Patent No. 4,954,197), Bussard (US Patent No. 4,838,965), and Bethea (US Patent No. 4,324,605) as taken with Ellis, Jr. (US Patent No. 4,998,448) and Fritz (US Patent No. 4,895,551).

The Admitted Prior Art discloses a method of manufacturing a driveshaft that is balanced for rotation about an axis by providing a driveshaft that is unbalanced for rotation about an axis, providing a balance weight, and providing an adhesive material between the rotatably unbalanced driveshaft and the balance weight to adhere the balance weight at a location for balancing the unbalanced driveshaft for rotation about an axis and curing the adhesive to provide a driveshaft that is balanced for rotation about an axis (page 1, line 26 to page 2, line 20).

It is considered well known and considered conventional in the art of bonding two articles together to move the two articles toward each other with a first portion of

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adhesive between the articles and a second portion of the adhesive is not disposed between the two articles in order to form a flange to more securely bond the articles together. For example, Dyckma discloses a method of bonding beads to fabric where the adhesive between the articles is pressed so that a portion of adhesive spreads beyond the periphery of the bead in order to form a flange around the bead that embraces the bead and insures retention of the bead on the fabric (column 2, lines 60-75). Jedlicka discloses another example where a chip is adhesively bonded to a substrate and a portion of the adhesive extends beyond the periphery of the chip in order to more securely bond the articles together (column 3, lines 5-68). Bussard also discloses an example of adhering a holograph to a substrate where adhesive between the two articles is pressed and squeezed out to form a flange that retains the hologram on the substrate with a more secure bond (column 2, line 64 to column 3, line 8). Finally, Bethea also discloses a method of adhesively bonding a tile to a substrate where the tiles are pressed into the adhesive forming a second portion of adhesive that extends beyond the periphery of the tile in order to anchor the tiles until the adhesive cures (abstract lines 11-15, column 2 lines 10-40, column 6, lines 47-55, and figures 4 and 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the method of adhering a balance weight to a driveshaft as shown by the Admitted Prior Art by moving the weight toward the driveshaft toward one another such that a first portion of adhesive is between the weight and the driveshaft and a second portion of adhesive is not disposed between the weight and driveshaft as it is considered a conventional expedient of one of ordinary skill in the art of bonding

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and as further exemplified by the art taken as a whole in order to more securely bond the articles to each other as shown in Dyckma, Jedlicka et al., Bussard, and Bethea.

The claims also recite the limitation that the second portion of adhesive material is initially cured to temporarily retain the weight on the driveshaft and subsequently the first portion of the adhesive material is cured to permanently retain the weight on the driveshaft. In the driveshaft balance art, it is well known to accelerate the adhesive by using external sources. For example, Ellis discloses curing an adhesive for balancing a driveshaft by using heat, UV or IR for accelerating the curing time of the adhesive (column 2, lines 1-6, column 3, lines 19-39). Also, Fritz discloses accelerating the adhesive used in balancing a drive shaft by heating, UV or IR (column 2, lines 1-10, column 3, lines 50-55). Clearly, the portion of the adhesive directly exposed to the accelerated curing means (the second portion) will cure initially, prior to the adhesive between the balanced weight and the driveshaft.

Alternatively, it is well known in the art to provide temporary securement of articles in the manufacturing industry by curing only a portion of the adhesive in order to allow for further processing until the entire adhesive is cured and the articles are permanently secured. For example, Jedlicka discloses that the second portion of the adhesive (the adhesive not between the chip and the substrate) is cured by an accelerated curing process (UV light) in order to temporarily hold the chip in place until the chip is permanently secured to the substrate by subsequent curing of the first portion of adhesive (column 3, lines 5-68; column 4, lines 10-20). One of ordinary skill in the art would recognize that the second portion of adhesive in the method of



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balancing a driveshaft as shown by the admitted prior art and Dyckma, Jedlicka et al., Bussard, and Bethea would cure initially to the first portion of adhesive when exposing the adhesive to an external accelerating curing source as well known in the driveshaft art as shown by Ellis and Fritz. One of ordinary skill in the art would further recognize temporarily securing the balance weight to the driveshaft by initially curing the second portion of adhesive to allow further processing prior to subsequent curing of the first portion of adhesive. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the method of securing a balanced weight to a driveshaft by the method as shown by the Admitted Prior Art, Dyckma, Jedlicka et al., Bussard, and Bethea by initially curing the second portion of adhesive in order to temporarily hold the weight on the driveshaft until the first portion is subsequently cured to permanently retain the weight on the driveshaft as it is considered well known in the bonding arts and well within the purview of one of ordinary skill in the art and further exemplified by Jedlicka particularly since it is known to use accelerated means for curing adhesive in the driveshaft balancing art as shown by Ellis and Fritz. Only the expected results would be attained.

***Allowable Subject Matter***

4. Claims 25-42 are allowed for the reasons as set forth in paragraphs 6 and 7 of the prior Office Action, paper number 18.

***Response to Arguments***

5. Applicant's arguments filed September 25, 2002 have been fully considered but they are not persuasive.

Applicant argues on pages 3 and 4 that the art of record does not show a second portion of adhesive that is not disposed between the weight and driveshaft that is initially cures. Applicant has amended the claim to recite that the second portion is now not disposed between the weight and the driveshaft. Consequently, the newly cited references, Dyckma, Jedlicka et al., Bussard, and Bethea, were cited to show that it is well known in the bonding art to provide a second portion of adhesive that is not between the two articles in order to more securely bond the two articles.

Applicant further argues on page 4 that there is no showing in the art of initially curing the second portion to temporarily secure the weight and subsequently curing the first portion. As discussed above, depending upon the type of adhesive used to secure the weight to the driveshaft, the second portion exposed to the moisture and atmosphere would cure prior to the first portion between the weight and driveshaft. Also, it is known in the bonding art to temporarily cure the second portion of adhesive prior to the first portion as shown by Jedlicka. Furthermore, this would have been particularly obvious to one of ordinary skill in the art because it is known in the balancing driveshaft art to accelerate curing of adhesive with external sources as exemplified by Ellis and Fritz.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gladys J. Piazza Corcoran whose telephone number is (703) 305-1271. The examiner can normally be reached on M-F 8am-5:30pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
Gladys J. Piazza Corcoran  
October 28, 2002

  
Michael Ball  
October 28, 2002